CONTOUR SANDBAGS

What are Contour Sandbags?

Biodegradable bags are filled with on site soil and bedded in a shallow trench forming a continuous barrier along the contour (across the slope) to intercept water running down the slope.

When are Contour Sandbags Used?

Contour Sandbags are used on burned slopes that have less than 30% of the original ground cover remaining and are at risk for increased erosion. They can be installed on slopes up to 70 percent, however their effect diminishes greatly on slopes steeper than 50 percent. Soils can be shallow, but not less than about 6 inches. Contour Sandbags increase infiltration, add roughness, reduce erosion, and help retain eroded soil on the slope. Contour Sandbags should be effective for a period up to one year, providing short term protection on slopes where permanent vegetation will be established to provide long term erosion control. Contour Sandbags accomplish the same treatment as Log Terraces, but require less skilled labor to install and can be placed on the slope more effectively. Sandbags should not be placed across drainage swales and channels with more than 1 acre of contributing drainage area because they are not sturdy enough to resist the forces of concentrated flows.

How are Contour Sandbags Installed?

Installation of Contour Sand Bags is straight forward and is an easy practice for untrained laborers, landowners and volunteer groups to complete.

- Layout a contour line on the slope with a hand level and wire flags.
- Dig a shallow depression, about 2 to 3 inches deep along the flag line
- Use the soil from the trench excavation to fill bags ½ to ¾ full.
- Fold the top over and lay the filled bags end to end in the trench.
- Seat the bags with foot tamped backfill on the upstream side such that water flowing down the slope will not run under them.

<u>What Materials are Needed</u>?

- Sandbags
- Hand tools -shovels, polaskis

How Many Sandbags Are Required?

The horizontal spacing of Contour Sandbags is determined with consideration for normal rainfall intensity, slope steepness, soil characteristics, and the extent of surface cover remaining after the fire. Figures 1 depicts the placement of sandbags on the slope. Table 1A and 1B show recommended spacing for treating burn areas along the front range in Colorado.

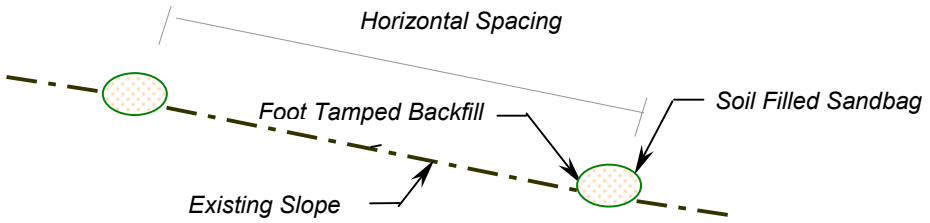

FIGURE 1 - Typical Contour Sandbag Installation

Table 1A - Recommended Spacing for Contour Sandbags - South of I-70

Burn Severity / Land Slope (percent)	Low Intensity		Moderate Intensity		Severe Intensity	
	Spacing (feet)	Quantity (bags/acre)	Spacing (feet)	Quantity (bags/acre)	Spacing (feet)	Quantity (bags/acre)
< 5 %	250	135	160	204	130	250
5 - 10 %	200	164	120	272	90	364
10 - 20 %	120	272	60	544	40	818
20 - 50 %	60	544	30	1088	20	1634
> 50 %	40	818	20	1634	20	1634

Table 1B - Recommended Spacing for Contour Sandbags - North of I-70

Burn Severity / Land Slope (percent)	Low Intensity		Moderate Intensity		Severe Intensity	
	Spacing (feet)	Quantity (bags/acre)	Spacing (feet)	Quantity (bags/acre)	Spacing (feet)	Quantity (bags/acre)
< 5 %	350	94	200	164	150	218
5 - 10 %	300	108	160	204	100	328
10 - 20 %	200	164	100	328	50	656
20 - 50 %	100	328	50	656	20	1634
> 50 %	50	656	20	1634	20	1634

NOTE: *After a fire many trees are weakened from burning around the base of the trunk. The* ***trees can fall over or blow down without warning****. Shallow rooted trees can also fall. Therefore* ***be extremely alert when working around burned trees****.*